Complete Summary

TITLE

Asthma: percentage of members with persistent asthma who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines in the measurement year.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

Brief Abstract

DESCRIPTION

This process measure evaluates if members with persistent asthma are prescribed medications acceptable as primary therapy for long-term control of asthma.

RATIONALE

The outcomes of asthma treatment are to reduce the impact of the disease on patient functioning. Anti-inflammatory medications are now considered the first-choice treatment in the pharmacologic management of chronic asthma. This measure promotes appropriate medical management of persons with asthma.

PRIMARY CLINICAL COMPONENT

Asthma; inhaled corticosteroids; nedocromil; cromolyn sodium; leukotriene modifiers; methylxanthines

DENOMINATOR DESCRIPTION

Medicaid, commercial members (report each product line separately) with persistent asthma who were continuously enrolled (no more than one gap in enrollment of up to 45 days during each year of continuous enrollment) for the reporting year and the year preceding the reporting year in the following age categories and in a combined rate:

- 5- to 9-year-olds
- 10- to 17-year-olds
- 18- to 56-year-olds

See the related "Denominator Inclusions/Exclusions" field in the Complete Summary.

NUMERATOR DESCRIPTION

For each member in the denominator, those who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines in the measurement year. Managed care organizations (MCOs) must use the National Drug Code (NDC) list provided on NCQA's Web site at www.ncqa.org to identify appropriate prescriptions.

Evidence Supporting the Measure

PRIMARY MEASURE DOMAIN

Process

SECONDARY MEASURE DOMAIN

Not applicable

EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Expert Panel Report: guidelines for the diagnosis and management of asthma. Update on selected topics.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Overall poor quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2003: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 61 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age 5 to 56 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Data are stratified by age, including children (5- to 9-year-olds and 10- to 17-year-olds).

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Approximately 15 million persons in the United States (U.S.) have asthma and the prevalence increased 75% between 1980 and 1994. The prevalence among children ages 5-14 alone increased 74%.

EVIDENCE FOR INCIDENCE/PREVALENCE

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

ASSOCIATION WITH VULNERABLE POPULATIONS

Although it is difficult to disentangle the effects of race, socioeconomic status, poverty, environmental factors, and drug management, the fact remains that prevalence, morbidity, and mortality are higher among black and Hispanic children in every study that addresses this issue. Hospital admissions for asthma are two to five times higher among nonwhite than white children.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Carr W, Zeitel L, Weiss K. Variations in asthma hospitalizations and deaths in New York City. Am J Public Health 1992 Jan;82(1):59-65. PubMed

Crain EF, Weiss KB, Bijur PE, Hersh M, Westbrook L, Stein RE. An estimate of the prevalence of asthma and wheezing among inner-city children. Pediatrics 1994 Sep;94(3):356-62. PubMed

Gerstman BB, Bosco LA, Tomita DK. Trends in the prevalence of asthma hospitalization in the 5- to 14-year-old Michigan Medicaid population, 1980 to 1986. J Allergy Clin Immunol 1993 Apr;91(4):838-43. PubMed

Halfon N, Newacheck PW. Trends in the hospitalization for acute childhood asthma, 1970-84. Am J Public Health 1986 Nov;76(11):1308-11. PubMed

Lang DM, Polansky M. Patterns of asthma mortality in Philadelphia from 1969 to 1991. N Engl J Med 1994 Dec 8;331(23):1542-6. PubMed

Weiss KB, Wagener DK. Geographic variations in US asthma mortality: small-area analyses of excess mortality, 1981-1985. Am J Epidemiol 1990 Jul;132(1 Suppl):S107-15. PubMed

Wood PR, Hidalgo HA, Prihoda TJ, Kromer ME. Hispanic children with asthma: morbidity. Pediatrics 1993 Jan;91(1):62-9. PubMed

BURDEN OF ILLNESS

Approximately 2.1 persons per 100,000 population died from asthma in 1995. The mortality rate is higher among males (versus females) and blacks (versus whites).

EVIDENCE FOR BURDEN OF ILLNESS

National Institutes of Health, National Heart, Lung and Blood Institute. National asthma education and prevention program task force on the cost effectiveness, quality of care, and financing of asthma care [NIH Pub.No. 55-807]. Bethesda (MD): U.S. Department of Health and Human Services; 1996 Sep. 110 p.

UTILIZATION

People with asthma collectively have more than 1.81 million emergency department visits, an estimated 1.51 million visits to hospital outpatient departments, and about 500,000 hospitalizations in 1990. Approximately 7.5 million prescriptions were dispensed for asthma symptom management and prevention.

EVIDENCE FOR UTILIZATION

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

COSTS

Asthma-related medical expenditures were $11.3 billion in the United States (U.S.) in 1998; direct costs accounted for $7.5 billion and indirect costs were $3.8 billion. Hospitalizations accounted for the single largest portion of direct costs.

EVIDENCE FOR COSTS

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Medicaid and commercial members age 5 to 56 years by December 31 of the measurement year with persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment

DENOMINATOR SAMPLING FRAME

Enrollees or beneficiaries

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Institutionalization
Therapeutic Intervention

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Medicaid, commercial members (report each product line separately) with persistent asthma[*] who were continuously enrolled (no more than one gap in enrollment of up to 45 days during each year of continuous enrollment) for the reporting year and the year preceding the reporting year in the following age categories and in a combined rate:

- 5- to 9-year-olds
- 10- to 17-year-olds
- 18- to 56-year-olds

[*]Members are identified as having persistent asthma by having any of the following in the year prior to the measurement year:

- at least four asthma medication dispensing events[+] (i.e., an asthma medication was dispensed on four occasions)
- at least one Emergency Department (ED) visit with asthma (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] code 493) as the principal diagnosis
- at least one acute inpatient discharge with asthma (ICD-9 code 493) as the principal diagnosis
- at least four outpatient asthma visits with asthma (ICD-9 code 493) as one of the listed diagnoses and at least two asthma medication dispensing events.[+]

Refer to the original measure documentation for Current Procedure Terminology (CPT) and Universal Billing 1992 (UB-92) Revenue codes to identify ED and inpatient asthma encounters.

[+]A dispensing event is one perscription of an amount lasting 30 days or less. Two different prescriptions dispensed on the same day are counted as two different dispensing events. To calculate dispensing events for prescriptions longer than for 30 days, managed care organizations (MCOs) should divide the days' supply by 30 and round up to convert. For example, a 100-day prescription is equal to 4 dispensing events (100/30 = 3.33, rounded up to 4).

Exclusions

(Optional) The MCO may exclude from the eligible population all members

diagnosed with emphysema and chronic obstructive pulmonary disease (COPD) any time on or prior to December 31 of the measurement year.

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
For each member in the denominator, those who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines in the measurement year. Managed care organizations (MCOs) must use the National Drug Code (NDC) list provided on NCQA's Web site at www.ncqa.org to identify appropriate prescriptions.

Exclusions
None

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for Medicaid and commercial plans.

For each product line, the measure should be reported for each of three age stratifications (based on age as of December 31 of the measurement year) and as a combined rate:

- 5- to 9-year-olds
- 10- to 17-year-olds
- 18- to 56-year-olds

The combined rate is the sum of the three numerators divided by the sum of the three denominators.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Use of appropriate medications for people with asthma.

MEASURE COLLECTION

HEDIS® 2004: Health Plan Employer Data and Information Set

DEVELOPER

National Committee for Quality Assurance - Private Nonprofit Organization

INCLUDED IN

National Healthcare Quality Report (NHQR)

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2000 Jan

REVISION DATE

2002 Jan

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

MEASURE AVAILABILITY

The individual measure, "Use of Appropriate Medications for People With Asthma," is published in "HEDIS 2004. Health Plan Employer Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI on July 18, 2003. The information was verified by the measure developer on August 29, 2003.

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